Economics A Level | Edexcel A | 9EC0

Data Response Case Studies

For A level Edexcel Economics A

Theme 3: Business behaviour and the labour market

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Contents

Teacher's Introduction

This resource is designed to be used for teaching Edexcel A level Economics Ther labour market. The resource consists of 12 Data Response Case Studies intende homework tasks.

The case studies are presented in specification order, collectively covering each t and revising the main topics from lower-sixth. Each case study contains detailed and data), and tasks and questions.

The 'Use the data' tasks focus particularly on quantitative skills, and the 'Test yo knowledge and application skills. The extended-response questions are an oppo higher-level analysis and evaluation skills. Most of the questions given are in exa limited questions to this style except in the case of the extended-response quest provided for all tasks and questions.

Reading through each study and answering the questions is expected to take 20- extended-response questions at the end of each case study. One option for usin study in class and set the exam-style evaluation question as homework.

This resource will help prepare students for the Paper 1 component of the A Lev interest in the real-world applications of microeconomics. Each case study uses to a fascinating array of contemporary microeconomic issues.

I hope this resource helps you to bring economics to life for your students.

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2. Demergers – another way to grow?	3.1 Business growth (dem
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Subway making headw

This case study requires knowledge of Section 3.1 – busine

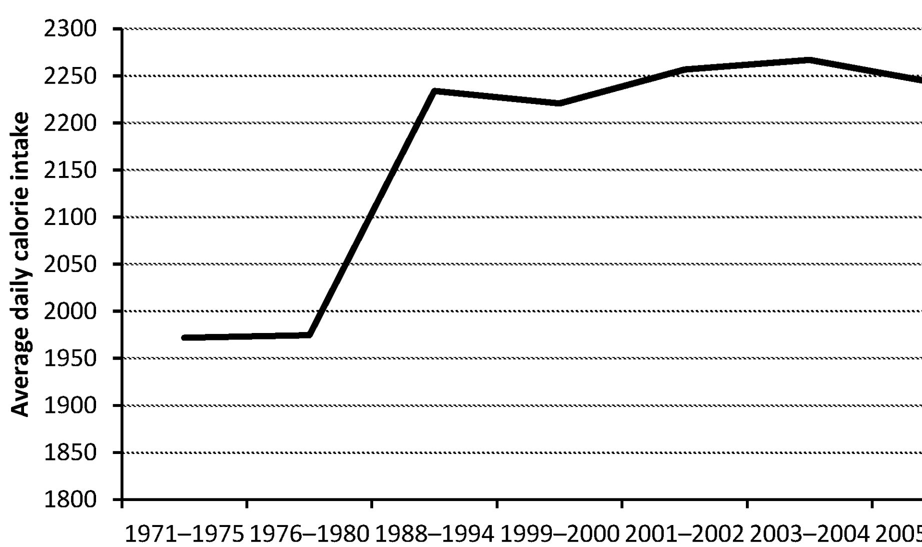
The free-market economic system in most parts of the world has led to a dynamic business environment, with huge numbers of firms competing to get ahead. In the last few years, few businesses have grown as successfully as the American fast-food restaurant Subway.

Subway operates a franchise model. This is when the parent company sells the right to use their business model to independent third parties. In practice, the owner of each Subway restaurant pays Subway an upfront fee and a certain portion of their earnings, and keeps the rest. This can be a good deal for potential entrepreneurs who want to run their own business, backed up by the support of a large, well-estab benefits Subway, as if these stores are unsuccessful, they only incur part o successful, Subway can reap the rewards from the royalties.

Some of the milestones Subway has reached include opening stores in ove its 40,000th store worldwide in 2013 (up from 35,000 in 2011) – this is more annual revenue, however, Subway trails its US rival McDonald's (and Sta

Along with the popularity of the franchise model, one reason for Subway' far more customisation of its meals to customers than its rivals, a feature v Subway restaurants also tend to be small and cheap to build, allowing for and growth in brand recognition. In addition, Subway has benefited from healthier than that of its traditional rivals such as McDonald's, at the same seem to be becoming more conscientious in their eating habits. Figure 1 sl consumption among Americans is beginning to fall, after decades of stead

Figure 1: Average daily calorie consumption in the USA



Source: Ame

Note: falls in average calorie consumption have yet to result in a fall in obesity, possibly because

However, as of 2015 there have been signs of a slowdown in Subway's rel in the market adapt to changing consumer habits. Rivals such as Chipotle fewer additives, better anticipating trends in consumer tastes. The sheer n market has also eaten away at Subway's market share, with many Americ Subway also suffered a blow from a child pornography case involving a v too early to tell whether this will have a material impact on sales.

Use the data

1. Using Figure 1, calculate the percentage change in average calories consum period and the 2009–2010 period.
2. Explain how the 'principal-agent problem' might apply to Subway's business

Test your knowledge…

1. Name one advantage and one disadvantage of business growth.
2. Explain the term 'organic growth' in the context of Subway.
3. Which of the following objectives is Subway most likely to pursue in 2016?
   A. Sales maximisation
   B. Satisficing
   C. Profit maximisation
   D. Revenue maximisation

Extended-response question

1. Assess two ways in which Subway's rivals could try to increase their sales.

Demergers – another way to

This case study requires knowledge of Section 3.1 – busine

When business growth is discussed, mergers are often viewed as a good way to expand a business. However, demergers can also contribute to business growth in the right circumstances (sometimes in the aftermath of a failed merger).

A recent example of this is eBay's separation from PayPal in July 2015, after a merger in 2002. Demergers are not undertaken lightly: the upfront costs of splitting up (e.g. in terms of employee time and consultancy fees) are considerable.

However, in the rapidly changing technological landscape, it made sense
ways. PayPal, which was bought by eBay for $1.5 billion but was valued
split, has had difficulty expanding onto other e-commerce sites given its c
Separating from eBay will allow PayPal to move forward into new marke
growing by acquiring some of its smaller rivals, and eBay has agreed to u
majority of its payments for the next five years.

For eBay, the future is less certain, but it is a potential target for takeover f
a foothold in the American market, such as China's Alibaba.

Figure 1 shows PayPal's share price, a good indicator of how well financia
company is doing. Expectations were high at the time of the demerger, w
share, although they have yet to return to this high.

Figure 1: PayPal share price July 2015 – Feb 2016 (US$)

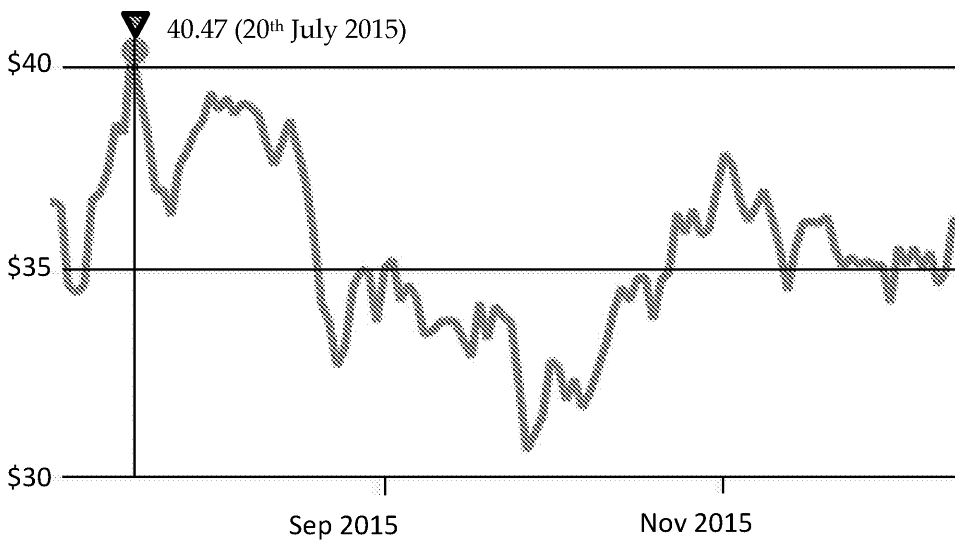
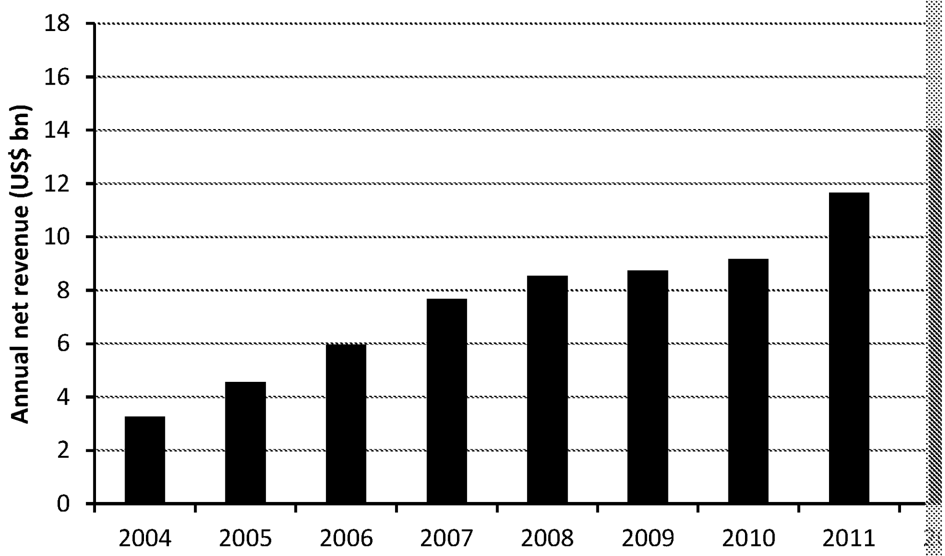


Figure 2 show's eBay's total revenue over the past few years:

Figure 2: eBay annual financial data



Total revenue is the value of sales a company makes in a year (total costs a calculate profit). The fall in revenue in 2015 may be an indication that eBa traditional auction style of selling is declining in popularity, and competit taken over much of its market share.

Use the data

1. Explain how the demerger might have affected the productivity of workers to the concept of 'specialisation').
2. Using Figure 2:
   (a) Calculate the percentage change in revenue between 2013 and 2014.
   (b) Calculate the percentage change in revenue between 2014 and 2015.

Test your knowledge…

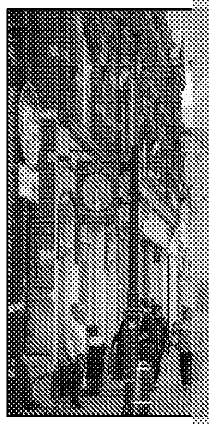
1. Using a demand and supply diagram, show the effect of a decline in eBay's a demand for items on eBay.
2. Demergers are usually assumed to increase competition in the market, whic consumers. Do you think this is the case with eBay and PayPal's split? (Not knowledge of Section 3.4 – market structures).

Extended-response question

1. Discuss whether horizontal or vertical integration is likely to be more beneficial

Creative destruction in the busi

This case study requires knowledge of Section 3.3 – revenues, c



In modern economies, businesses start up and go bust very frequently, as technology evolves and consumer tastes and preferences change, among other factors. In the 1940s, the Austrian economist Joseph Schumpeter described this process as a 'gale of creative destruction'.

In the UK, high streets have always changed over time, with new shops coming in to replace existing underperformers. Tables 1 and 2 show the top 10 business closures and openings by classification for the first six months of 2015 (based on the UK's largest 500 towns):

Notably, the num

Figure 1: top business openings

Classification	Net change (%)	Net change (units)
Barbers	+4.7	118
Mobile Phones	+9.4	86
Tobacconists	+28.3	81
Cafés and Tearooms	+1.2	80
Restaurants and Bars	+6.7	74
Hair and Beauty Salons	+3.6	65
Nail Salons	+4.2	51
Beauty Salons	+2.3	43
Restaurants – American	+19.2	28
Health Clubs	+5.0	25

Figure 2: top busi

Classification
Clothes – wome
Newsagents
Public Houses and
Jewellers
Restaurants – Ind
Night Clubs
Confectioners
Discount Store
Hairdressers
Booksellers

28.3% with the rise of e-cigarettes, while the number of discount stores fel of rapid growth in the years since the financial crisis). Cafés / coffee shops rise: some have speculated that they are beginning to replace the pub as a socialise, particularly for families and women.
Overall, there was a slight fall in the total number of high street shops, wi shops and 437 fewer chain shops. This could be due to competition from captured a large part of the market in recent years), although the total nu been increasing since 2012.

Some high-profile examples of chains that have had to close down in the U include Woolworths, JJB Sports and HMV. Both of the latter have been ta this often happens with large brand names that go bust.

Costs and revenues

When it boils down to it, a firm's success depends on its revenues and cos theories about how a firm's revenues and costs change depending how m This can help to predict how businesses should operate in order to meet d profit maximisation).

In reality, it's almost impossible to obtain complete cost and revenue data experiment with every possible price/quantity combination (and even if th demand and supply are likely to change over time). Nevertheless, it is stil theory.

Figure 1 shows the partly completed costs and revenues for a fictional fish operates in the short run: they can hire more employees but they cannot o

Figure 1: Ben's fish and chip shop, costs and revenues

Portions sold	0	10	20	30	40	50	60
Price per unit	10	9	8	7	6	5	4
Cost of rent and electricity	60	60	60	60	60	60	60
Wage bill	0	30	30	60	60	105	120
Cost of buying ingredients	0	30	40	45	60	50	90
Total cost	60		130		180		270
Average total cost	N/A		6.5		4.5		4.5
Average variable cost	N/A		3.5		3		3.5
Marginal cost	N/A		1		1.5		5.5
Total revenue	0		160		240		240
Average revenue	N/A		8		6		4
Marginal revenue	N/A		7		3		-1

In order to increase the number of portions/units sold, the wage bill increa workers and has them work longer hours. The cost of buying ingredients due to bulk discounts up to a point when they have to buy from another s cost.

Use the data

1. (a) Fill in the blanks in Figure 1. (Note: when filling in the marginal cost an calculate the MC/MR of one extra unit sold, not 10 extra units. Assume across all 10 units – see examples already filled in.)
   (b) Draw a diagram with goods sold on the x-axis and price on the y-axis. F on the diagram: average variable cost, average total cost, marginal cos revenue.
   (c) Find the profit-maximising level of output by estimating where margina
   (d) On a separate diagram, roughly plot the total revenue and total cost cu
   (e) Find the profit-maximising level of output by estimating the point wher total cost. Does this fit with your answer to (c)?

Test your knowledge…

1. (a) Using the data from Figure 1, identify one fixed cost and one variable c
   (b) Explain what is meant by diminishing marginal productivity, using an ex Figure 1.
2. At what point would a firm choose to shut down in the long run?

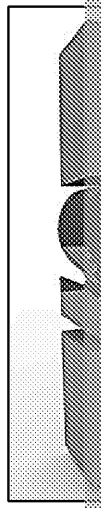
Extended-response question

1. Examine how the costs and revenues of a luxury tea shop might change in a downturn).

The stock market – perfectly co

This case study requires knowledge of Section 3.4 – market structures. The fo

Perfect competition is a theoretical idea, and there are few real-world examples of markets that are perfectly competitive. One possible contender is the stock exchange.

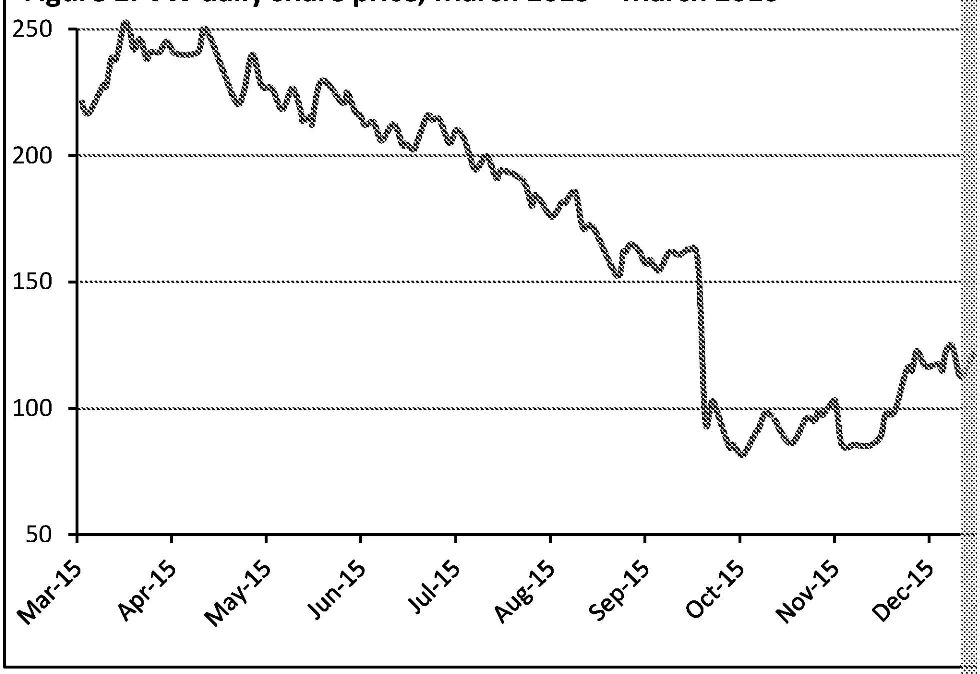


The stock exchange is a global marketplace where millions of buyers and sellers trade shares in companies. Owning a share in a company means you have a small stake in the company's success – if the company does well, the share becomes more valuable. Owning 'stock' in a company is essentially the same thing – it means the total number of shares you own. Owning stock in a company is also referred to as having 'equity', a term which also applies to partly owning a house (e.g. via a mortgage).

Companies benefit from being on the stock market, as it gives them access
variety of sources. Canny investors, using stock market information freely
also benefit if they can correctly guess the movement of share prices. Buy
time can be very lucrative, but it is inherently risky.

Figure 1 shows the share price of Volkswagen, the German car manufactu
of one share in VW in euros.

Figure 1: VW daily share price, March 2015 – March 2016

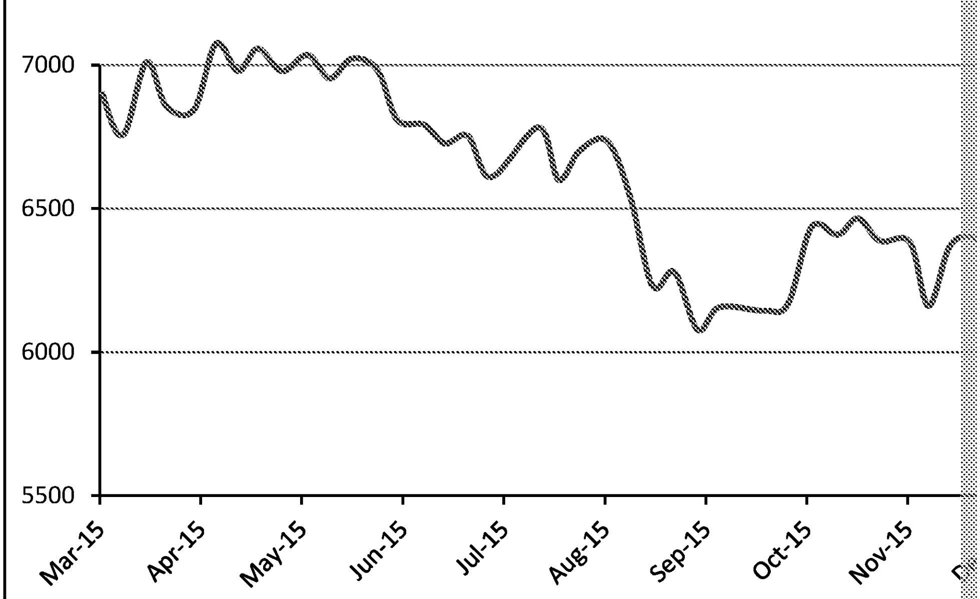


VW's share price nosedived in September 2015 after the emissions test sca
by over €25.

The share prices of many large companies are often combined into stock m
include the FTSE 100 (based on the 100 largest companies on the London S
Jones Industrial Average (based on 30 large stocks traded on American sto
Composite Index (based on the share prices of large Chinese firms).

Figure 2 shows the FTSE 100 index over time. The y-axis is a measure of h
the index are performing on average.

Figure 2: FTSE 100 Index, March 2015 – March 2016



After peaking at over 7,000 in April 2015, the FTSE 100 has performed wea
in January 2016 (which means that the index is at least 20% below its high
jargon, a 'bear' market is simply one in which prices are falling, while a 'b
rising prices.

Note: If you're still not entirely sure how the stock exchange works, watch
https://www.youtube.com/watch?v=F3QpgXBtDeo

Use the data

1. (a) Look at Figure 1. In September 2015 do you think there were more sel
   (b) Suppose you owned 500 shares in VW. Calculate the change in value o
   2015 and February 2016.
2. If the FTSE 100 index reached 8,500, what number would it have to reach to

Test your knowledge…

1. Name one possible example of a perfectly competitive market (other than t
2. Using revenue and cost curves, show the long-run equilibrium of a firm in a

Extended-response question

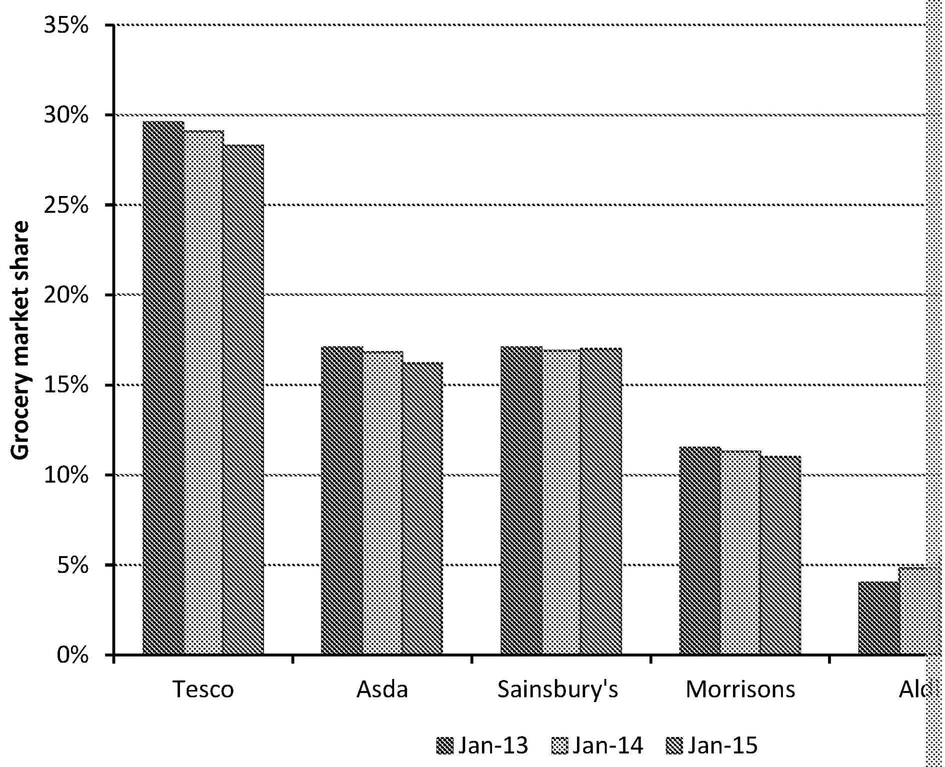
1. Evaluate how well the stock market exhibits the characteristics of perfect co

Supermarket wars

This case study requires knowledge of Section 3.4 – marke
The focus is on monopolistic competition and oligo

The landscape in the UK grocery market has been changing over the past 'discounters' such as Aldi and Lidl have emerged as big players in the ma such as Tesco have struggled. Figure 1 shows how Aldi and Lidl's marke expense of their larger rivals:

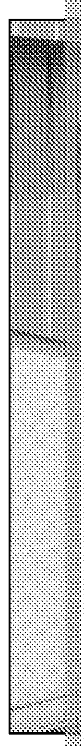
Figure 1: Change in grocery market share, selected retailers (2013–201



This could be an indication that the supermarket business, usually considered an oligopoly, is shifting closer to monopolistic competition, similar to that seen in the market for local convenience stores.

Evidence of this shift can be seen in the price wars between supermarkets. In November 2014, total food sales in the UK fell for the first time in 20 years as prices tumbled. The competition was particularly fierce over the Christmas period in 2015. Aldi's move to cut the price of parsnips to 39p a bag triggered swift responses from Morrisons, who offered a 4kg bag of vegetables for just £1, and Lidl who cut packs of vegetables to a mere 29p. Tesco and Asda's sales in the run-up to Christmas suffered, with sales falling around 3.4% compared to the same period in 2014.

Combined with low commodity prices, price wars have meant consumers have benefited from pleasantly low prices.



Although the traditional incumbent firms such as Tesco continue to benef
brand loyalty, Aldi and Lidl have succeeded in part by adapting their in-s
stores offer a smaller range of goods, and far fewer staff operate tills and r
by the fact that sell-by dates are not included on products). These measur
production to a minimum. In this way, Aldi and Lidl are differentiated fr
supermarkets, who typically competed only on price and quality.

Use the data

1. Using Figure 1, calculate the change in the four-firm concentration ratio bet
2. Using revenue and cost diagrams, and assuming that both firms aim to max afford to charge lower prices than Tesco.

Test your knowledge…

1. (a) Define the term 'economies of scale'.
   (b) Explain two ways in which large supermarkets could benefit from econ

Extended-response question

1. Assess whether the characteristics of the UK supermarket sector are those o monopolistic competition.

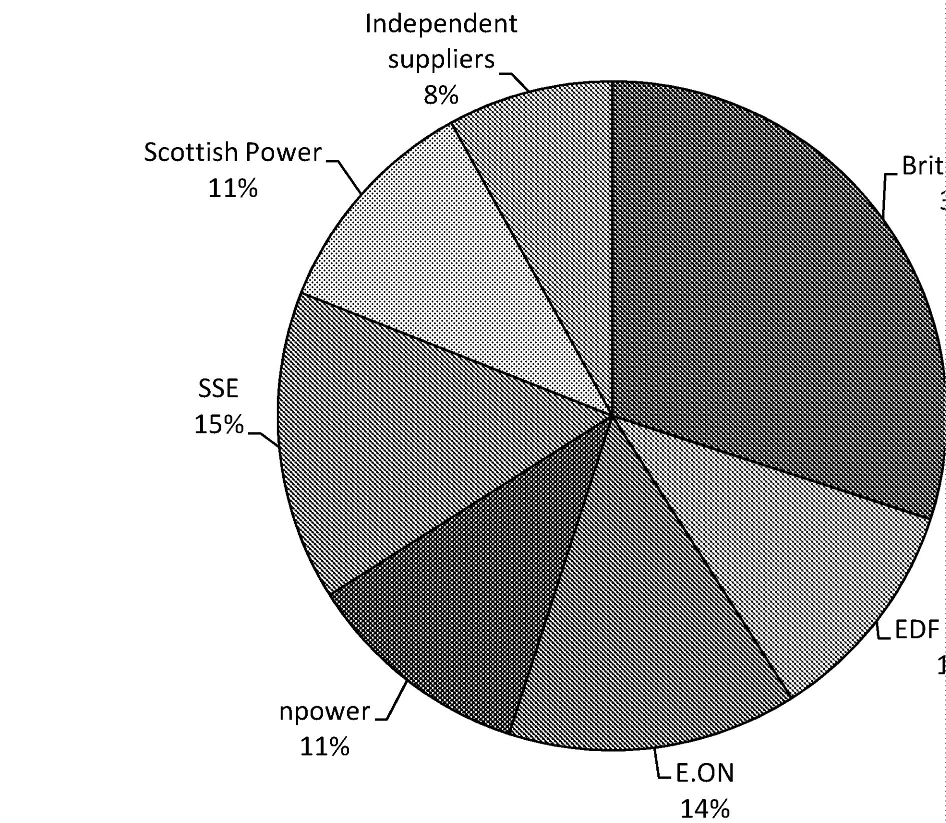
Inertia in the energy ma

This case study requires knowledge of Section 3.4 – market structures.

It is well known that asymmetric information can lead to market failures. car salesman who convinces his customers that his cars are worth more th has better knowledge of the car's true value.

Another market that has been suspected of suffering from asymmetric inf market. The vast majority of energy in the UK is supplied by a few large, companies – the 'Big Six'. Figure 1 shows the market share for these comp the market supplied by independents has increased from almost zero in 20 dominated by the Big Six:

Figure 1: Share of UK energy market (2014)



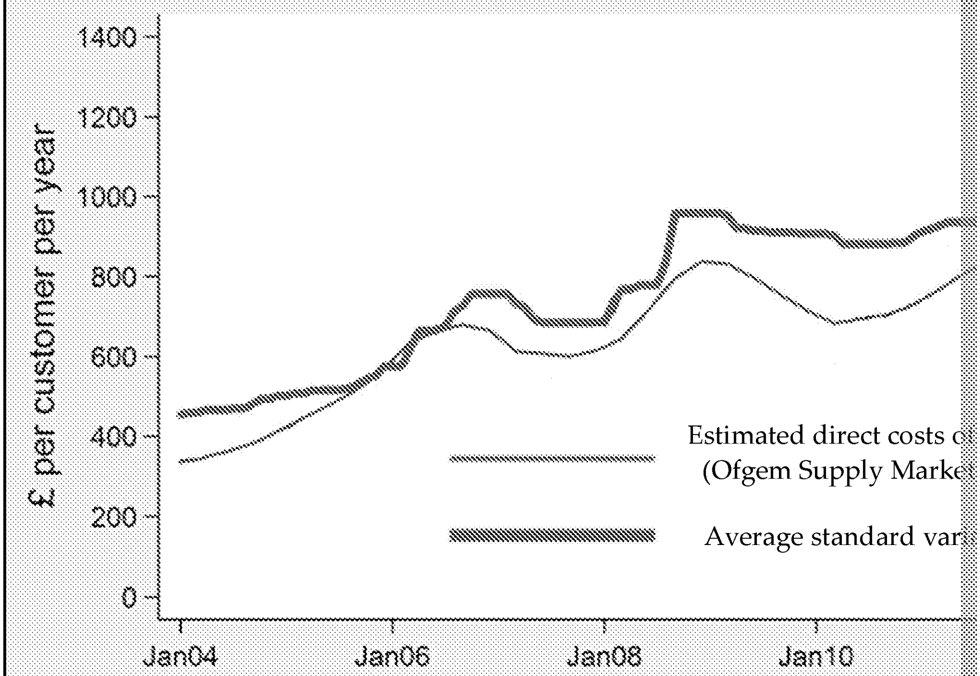
Energy = electricity and gas.

Energy prices tend to benefit those who 'shop around' a lot in the market. deals to new customers who switch providers, and usually offer the worst who stick with the same provider.

This would work well in a market with symmetric information between firms and consumers, as customers would switch regularly to get the best deals. However, it is argued that comparing energy costs is overly complicated, and that the procedure for switching can be difficult. As such, only the most well informed (often the better-off) consumers reap the benefits of switching providers, while most of the population are stuck with high tariffs. One government report, analysing Quarter 1 2012 to Quarter 2 2014, found that 95% of consumers could save by switching supplier (or tariff type), at an average saving of £158–£234 a year.

It has been argued that the market has become less competitive over time. estimated costs of energy production with the average standard variable t of energy bill that fluctuates in price):

Figure 2: UK average energy bills (standard variable tariffs) vs energy c



Source: Competition & Markets Authority – energ

Note that indirect costs are not included (e.g. insurance, depreciation)

Consumer distrust in energy suppliers currently stands at 59%, making en consumer industry sectors. There are likely to be ongoing battles between suppliers in the future to make sure the market is competitive and outcom

Use the data

1. Using Figure 1:
   (a) Calculate the three-firm concentration ratio for the energy market in 2
   (b) Calculate the six-firm concentration ratio.
2. Based on the article:
   (a) State one reason why competition might be increasing in the energy m
   (b) State one reason why competition might be decreasing in the energy m
3. Based on the article, what is the main source of market failure in the energy

Test your knowledge…

1. Which of the following best describes the UK energy market – (a) perfect co competition, (c) oligopoly, (d) monopoly?
2. Explain why 'vertical integration' might be a barrier to entry in the energy m

Extended-response question

1. Discuss the effectiveness of a government policy to increase competition in subsidising new entrants in the market for the first few years.

Diamonds are foreve

This case study requires knowledge of Section 3.4 – market structures. The focu

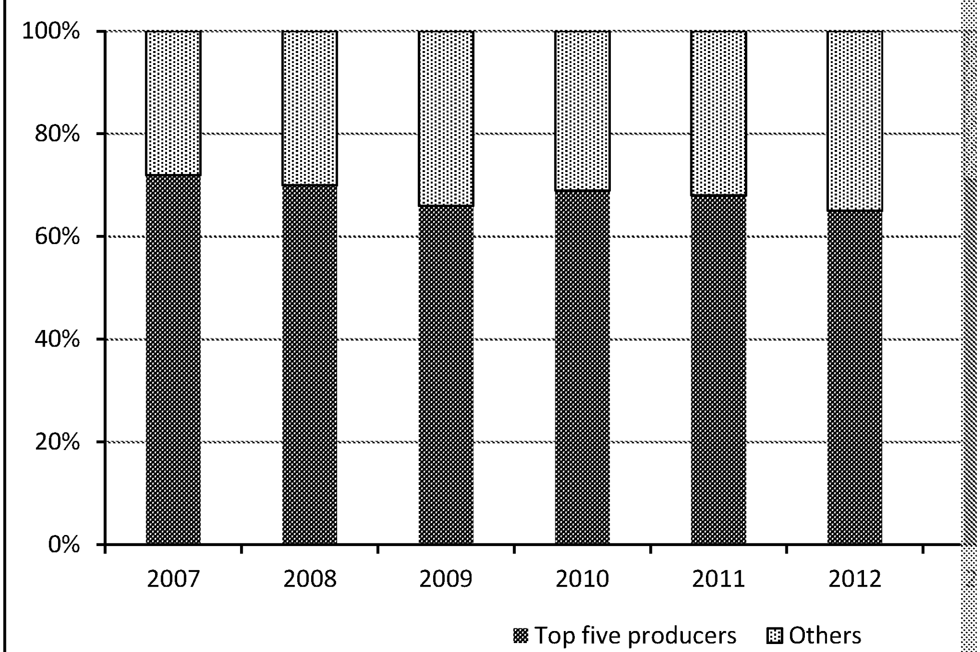
Most people are familiar with the idea of a monopoly, but there are relatively few examples of true monopolies. One infamous example of bo a monopoly and a monopsony that has been well studied is the diamond company De Beers. Although their monopoly power has substantially waned since the turn of the millennium, in the twentieth century De Beers dominated the diamond market, peaking at 90% market share in the 1980s

De Beers' success was partly due to their incredibly successful marketing campaign – they came up with the slogan 'diamonds are forever', and ma people still feel obliged to buy a diamond ring to accompany a proposal. However, this marketing applied for all diamonds, not just De Beers diamonds. Their success was more to do with their ruthless control of several stages of production.

De Beers gained control of the main diamond mines in South Africa, Tanz by absorbing its main competitors, paying the governments of host countr competitors to stockpile in warehouses. This allowed it to artificially restr giving the illusion of scarcity and inflating prices. Using De Beers' monop were then sold to trusted dealers at fixed prices, who then sold them to th

This system finally collapsed in 2004 when De Beers pleaded guilty to pric Around the same time, other diamond companies found sources beyond t Canada and Australia, ending the monopoly. The diamond industry also reputation, relating to wars in Africa funded by 'conflict diamonds' (or bl increased scrutiny from consumers and regulators. By 2012, De Beers' ma 50%. Figure 1 shows the market concentration of the main five firms in th Beers still being the largest):

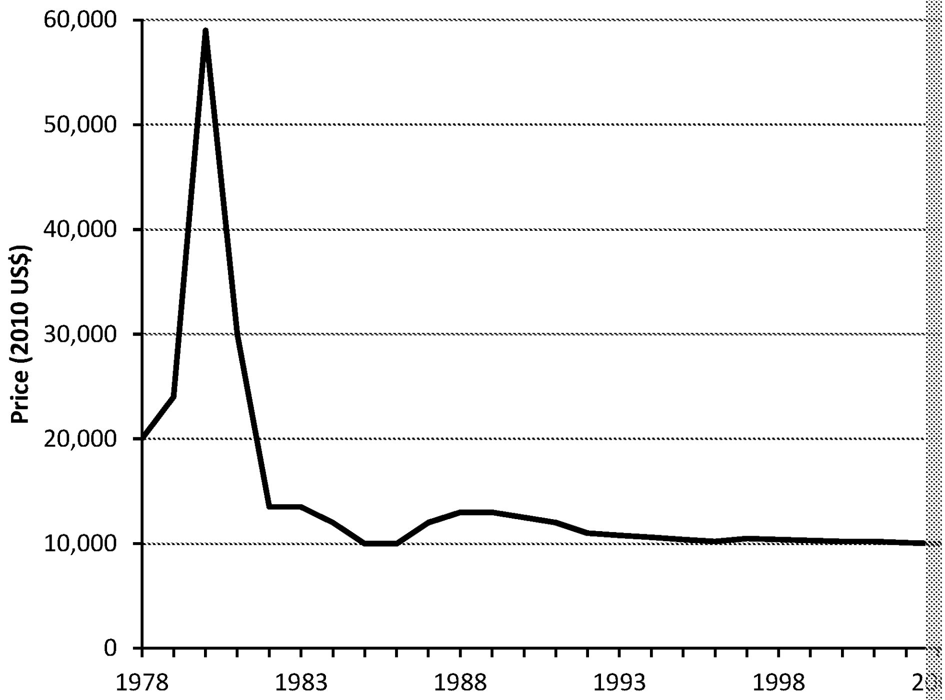
Figure 1: Five-firm concentration ratio, diamond industry (2007–2015)



Source: The Global Dia

Figure 2 shows the world price of diamonds over time:

Figure 2: Average price of top-quality one-carat diamonds, 1978–2010



Note: figures are real (i.e. adjusted for inflation). One-carat diamonds are often used in engagen

The spike in 1980 was a price spike for many precious metals, as inflation encouraged people to invest in commodities such as gold and diamonds, safer value than currency).

Demand seems to have picked up in the last few years as the middle class although the US remains the largest buyer of demands.

Use the data

1. Do you think De Beers' monopoly of the diamond market was a natural mor
2. Which market structure best characterises the diamond market in recent ye
3. How would Figure 2 change if diamond prices were not adjusted for inflatio
4. Explain how De Beers acted as a monopsony.

Test your knowledge…

1. (a) Define the term 'supernormal profit'.
   (b) Using a diagram, show the price and quantity of diamonds arising unde supernormal profit.
2. Explain two possible benefits of monopolies (not necessarily the diamond m

Extended-response question

1. Using a diagram, explain why there may be a natural monopoly in some ma

Contestability

This case study requires knowledge of Section 3.4 – market structures. Th

An important feature of many markets is how *contestable* they are. A conte where firms are free to enter and exit the industry at little or no cost. Even firms (or even just one), if it is contestable then existing players in the mar output as if they are in a competitive market, due to the threat of entry by

The classic example: US airlines
In the late 1970s and early 1980s when the contestability idea was first stud examples of a contestable market was the internal air-flight market in the

Survey data showed that the majority of non-stop internal flight routes in route was only served by one firm.

Figure 1: Internal US flight routes (1980)

	No. of monopoly markets	
0–200 miles	425	
201–400 miles	294	
401–600 miles	140	
601+ miles	302	

Source: 'The contestability of airline markets during the transi

The explanation for this is that there are economies of scale in the airline m the aircraft, the lower the cost per passenger for the airline (declining aver equilibrium number of flights per day (to benefit from the economies of sc effect, these routes are natural monopolies.

Figure 2: Economies of scale in aircraft size

Flight length	Aircraft	Seats	Average passe
500 miles	CV-580	56	$6
	B-737–200	130	$4
1,000 miles	B-737–200	130	$6
	B-727–200	162	$5
1,500 miles	B-727–200	162	$8
	DC-10–10	380	$6

Source: 'The contestability of airline markets during the transi
Note: marginal and average costs assume aircraft is 75% full.

The interesting thing about this case is that the airlines didn't charge high there was always a possibility that another airline at each airport could en market was contestable.

Note that in this case, although there were high sunk costs for completely the fact that there were other airlines flying different routes who had alrea meant that the market for each route was contestable.

Pharmaceutical drug prices in the US

A lack of contestability in the US market for Daraprim, a drug used to treat a condition affecting some AIDS patients, caused something of a scandal in 2015. A company called Turing Pharmaceuticals bought the rights to produce and sell the drug, and promptly increased the price from $13.50 a pill to $750 a pill (in the UK these pills can be bought for about 50p each).

In this case it was not a patent that prevented other companies from enter been around for over 60 years), but a complex and expensive regulatory p producers to enter the market. Given that the market for Daraprim is very prescriptions per year in the US), it would not be financially viable for and and undercut Turing.

This case highlights flaws in American regulation, where a system designe poor-quality drugs can permit such blatant profiteering.

Use the data

1. Using the article, identify one barrier to entry in the pharmaceutical drugs m
2. Using Table 1, calculate the proportion of all flight routes that were compet
3. Using Table 2, calculate the total cost of a 1,500 mile DC-10–10 flight assum filled.

Test your knowledge…

1. State two features of perfectly contestable markets.
2. Define the term 'sunk costs'.

Extended-response question

1. Evaluate the extent to which the market for automobiles is contestable.

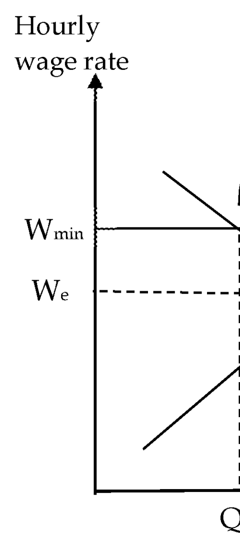
Will raising the minimum wage harr

This case study requires knowledge of Section 3.5 – labou

The basic economic theory concerning a national minimum wage (NMW) is quite simple – imposing such a wage will lead to disequilibrium in the labour market and unemployment among low-skilled workers, as shown in Figure 1.

In light of this, George Osborne's plans to introduce a 'living wage' might seem misguided – surely it will just lead to unemployment? The current plan is to increase the NMW for over-25s to £7.20 an hour in April 2016, ramping up to £9 an hour by 2020 (partly offset by cuts to benefits). The OBR (Office for Budget Responsibility) estimated that employment would fall by 60,000 by 2020 as a result of the policy, although this estimate is very uncertain.

Figure 1

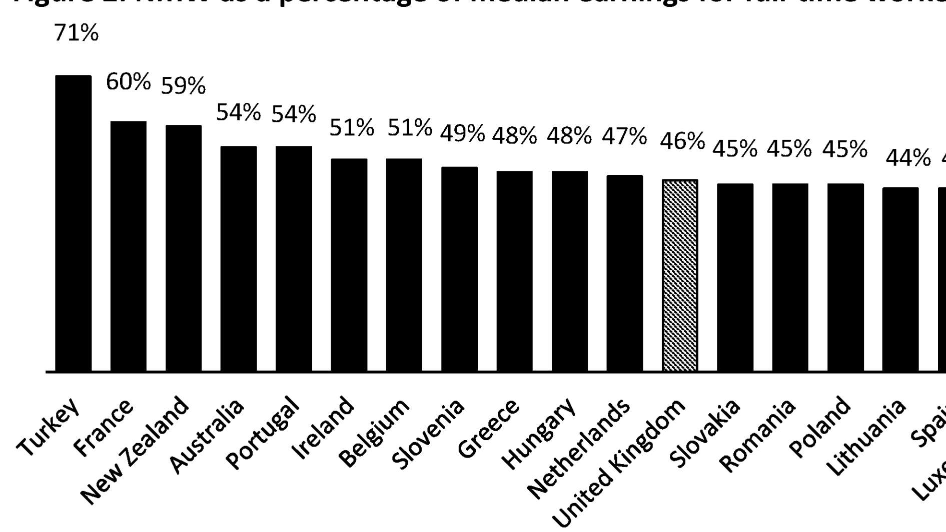


So, what does the empirical evidence suggest about the link between a NM UK? The consensus among researchers is that since its introduction in 19 resounding success: it has effectively reduced wage inequality without ca (in a poll of experts, the NMW was voted the most successful UK governm

However, we have to be careful before interpreting this to mean that Geor equally successful – there has been some evidence that the NMW has had employers in terms of lower profits, shorter hours for employees, higher p non-wage benefits such as pension entitlements, for example.

Furthermore, even though the NMW has increased more quickly than ave a big jump to £9 an hour in 2020 could be enough to cause noticeable uner level of the NMW is important: one way researchers have looked into this of the NMW in the UK with other countries:

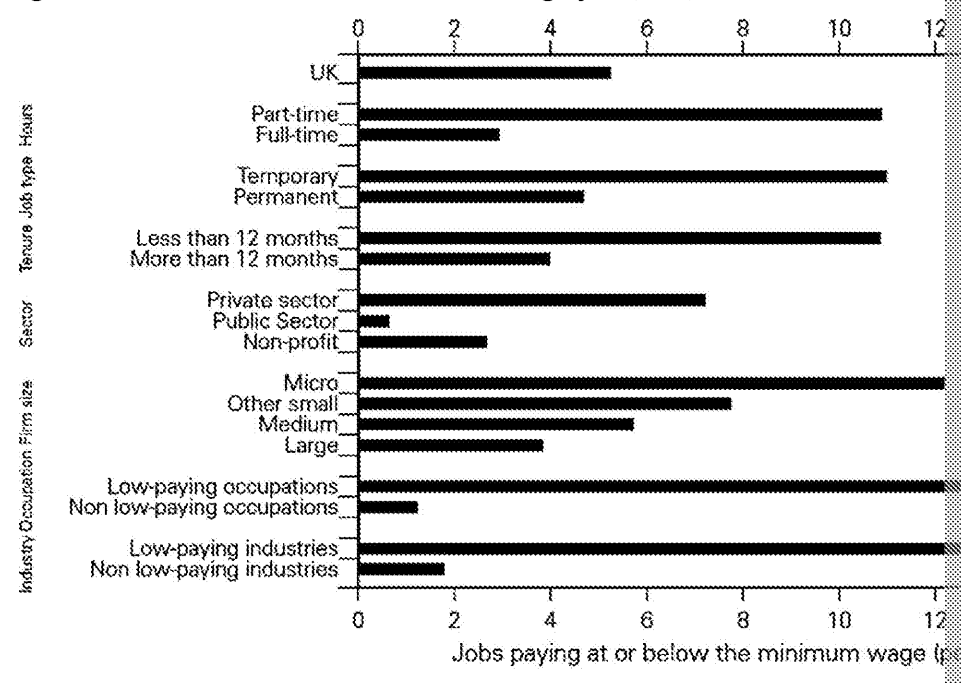
Figure 2: NMW as a percentage of median earnings for full-time worke



The size of the NMW as a percentage of median earnings is a measure of i
UK is fairly average in this regard compared to other OECD (Organisatio
and Development) countries at 46%, although this figure is higher among
those in low-skilled occupations. If the NMW were to increase significant
New Zealand, for example) it is much more likely that this would lead to
France is widely criticised as being damaging to employers.

Figure 3 shows the percentage of UK jobs paying the minimum wage, var
The number of people affected by the NMW is another important factor i
economy.

Figure 3: Characteristics of minimum wage jobs, UK, 2014



S

In summary, the NMW has been a highly successful policy in raising livin
since predicting the effects of a change in the NMW is so difficult, the gen
should be wary of raising the NMW very rapidly, to avoid a potential une

Use the data

1. Look at Figure 2. If the UK's NMW in 2009 was £5.80, calculate the median workers.
2. Look at Figure 1. How would the level of unemployment change in respons and supply for unskilled workers were price elastic?

Test your knowledge…

1. The NMW wage rates for workers aged 21+ in the UK over time are as follo

Year	2011	2012	2013	2014	2015	201
NMW	£6.08	£6.19	£6.31	£6.50	£6.70	£7.2

**Predicted, ages 25+*

(a) Compare the growth rates in the NMW from 2011–2015 with the grow
(b) Based on the article, does the government's proposed policy fit with th should be gradual?

Extended-response question

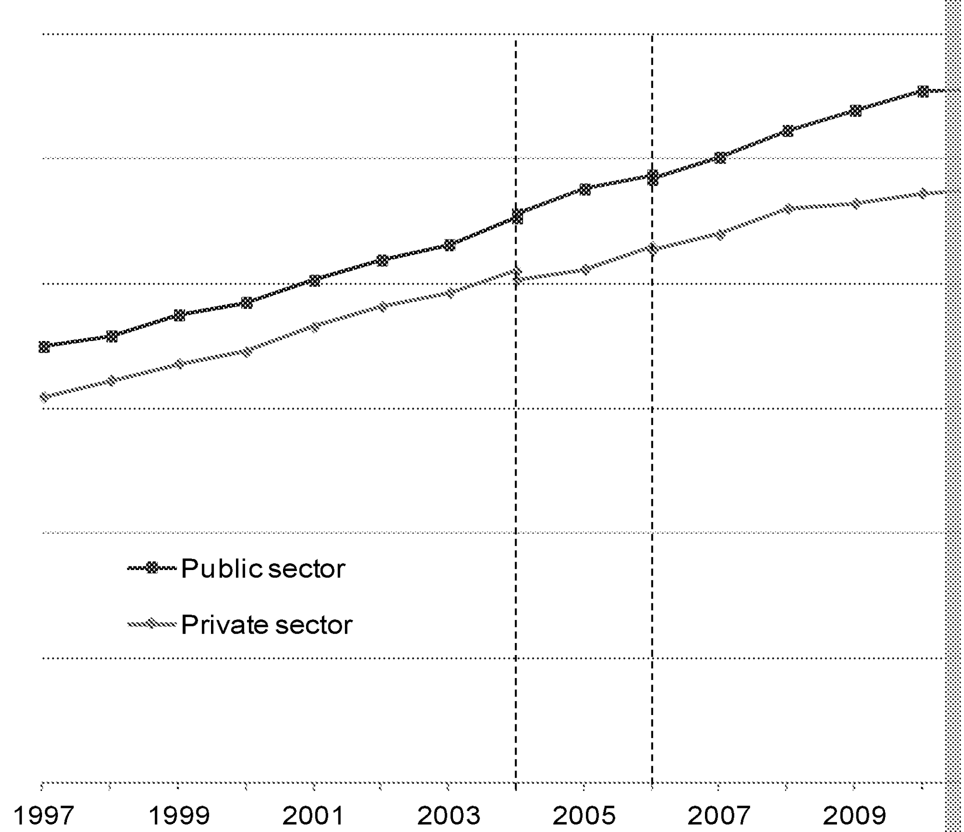
1. Evaluate the extent to which introducing a National Minimum Wage will inc

Is there a shortage of teac

This case study requires knowledge of Section 3.5 – labou

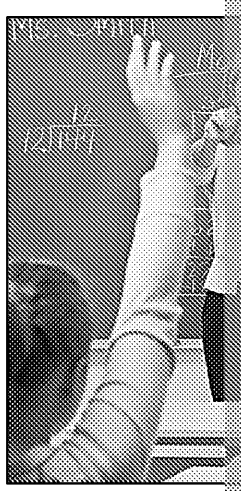
In the UK, around 19% of workers are in the public sector, over half of wh NHS. On average, working in the public sector pays better than the priva The main explanation for this is that public-sector workers are, on average sector workers (and most of the lowest paid jobs are in the private sector).

Figure 1: UK median full-time gross weekly earnings, public and private



Source: ONS Annual Survey of Hou

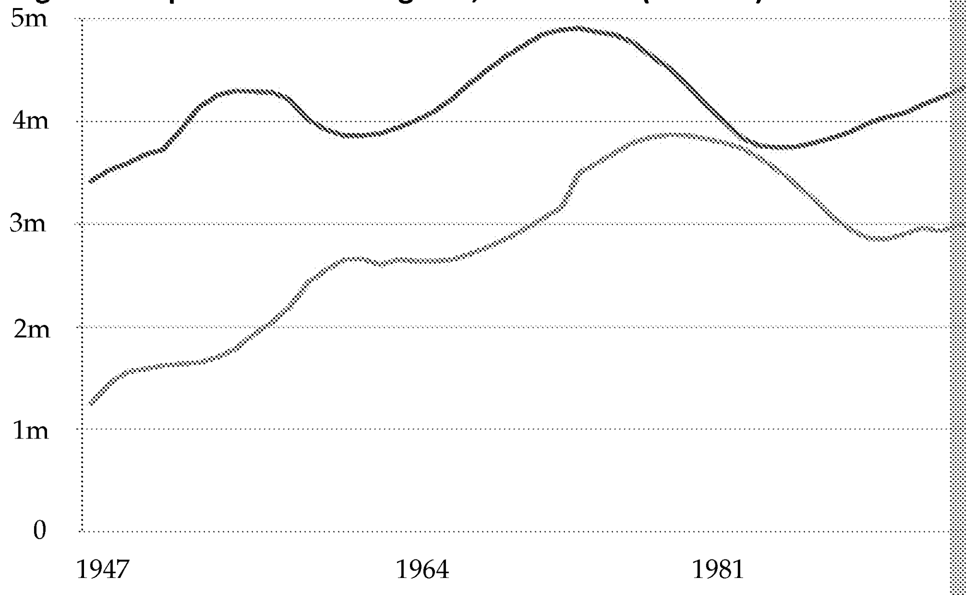
Data is nominal (i.e. not adjusted for inflation).
Dotted lines show different estimates of the data in 2006, 2008 and 2011.



Recently the government has struggled to recruit sufficient levels of staff in the public sector, particularly teachers. This varies by area and subject, with maths, business, science and English teachers in especially short supply (although others have a surplus, e.g. art and PE). More challenging schools are the worst off (since teachers would usually choose to work in better-performing schools, given the choice), and schools in expensive areas in the south-east are also affected as house prices rise. Schools are having to spend significantly more on supply teachers to plug gaps in staff and recruitment agency fees to hire good teachers. In a few cases, pupils are having to travel between two different schools in a day for teaching.

This is in spite of the fact that the number of teachers in the UK is at an all
problems seems to be the rising numbers of pupils (see Figure 2), and also
has led to more alternative employment options for graduates.

Figure 2: Pupil numbers in England, 1947–2015 (millions)



Source: Departme

One option for the government could be to increase the pay of teachers to
Teachers currently earn between £22,244 and £32,831 per year depending
(this is higher for London where the cost of living is higher). The governm
Service initiative offers financial incentives to attract high-calibre teachers
performing areas of the UK, while introducing national tests for seven-yea

However, a study by the National Foundation for Educational Research (N
those leaving teaching went on to lower salaries – so perhaps offering high
effective in this case. Furthermore, at a time when the government is tryin
spending, higher spending on teachers would be costly.

Use the data

1. Look at Figure 1. This figure shows median weekly earnings. Would you exp
   different if mean weekly earnings were used instead?
2. (a) Look at Figure 2. Given that changes in pupil numbers usually reflect ch
   identify roughly where the 'baby boom' period in England was from the
   (b) How would you expect the number of state-funded secondary-school p
   years?

Test your knowledge...

1. (a) Based on the article, explain how geographical immobility of labour mi
   teachers in certain areas.
   (b) Name two other factors that affect the supply of teachers.
2. Using a demand and supply diagram, show how there might be a shortage o
   government is too low.

Extended-response question

1. Discuss the effectiveness of the government increasing the salaries of all tea
   increase the supply of teachers.

The European Competition Co

This case study requires knowledge of Section 3.6 – governme

Government intervention can play an important role in keeping markets competitive and fair. Many issues are dealt with by national competition authorities, but in an increasingly globalised world, many cases are trans-national. In the European Union, the European Commission is responsible for dealing with these cases. This case study looks at a few examples of recent cases looked into by the European Commission.

Action against steel dumping

The European Commission has been investigating so-called 'dumping' of primarily by China (and partly by Taiwan). China has subsidised steel pr domestic needs, undercutting EU prices by around 10%. The Commission competitive, and imposed anti-dumping duties on the imports as a result.

China may have been trying to force EU steel producers out of the market succeeding. In the UK, thousands of jobs have been lost in the steel indus Figure 1 shows how China's growth in exports may have come at the expe

Figure 1: 10 largest steel exporters 2012/2013

Country	Rank (2013)	Exports: Million tonnes 2012	20
China	1	51.2	57
Japan	2	41.1	42
EU	3	37.8	34
South Korea	4	29.4	28
Ukraine	5	24.0	24
Russia	6	26.5	23
Turkey	7	18.4	17
USA	8	12.8	11
Taiwan	9	10.3	11
India	10	7.4	9.
Other		37.9	34
Total world		**296.7**	**29**

So

European Commission block Ryanair merger with Aer Lingus

Companies often find it mutually beneficial to merge – it allows a compan share and greater economies of scale, among other benefits. However, in s unfair concentration of market power in the hands of one company.

On these grounds, the EU blocked Ryanair's proposed merger with Aer L The two companies had already been prevented from merging in 2007 for relatively rare: the Commission has given the go-ahead to 12 other merger The Commission's argument is that Ryanair and Aer Lingus compete dire if Ryanair acquired Aer Lingus, it would effectively have a monopoly ove

Is Google restricting competition?
In April 2015, the European Commission argued that Google was promoti shopping services unfairly on Google searches, at the expense of competit since Google controls a massive 90% of the web-search market in Europe.

Google has strongly opposed the Commission's findings, and it will proba case is resolved. In traditional sectors such as gas and electricity, compan rivals' products – but there is less of a precedent in the Internet search bus process.

The US's Federal Trade Commission (a similar body to the European Com charges on Google over the same issue – and President Obama suggested in the matter was intended to protect the interests of European tech comp be restricting competition, the Commission has the power to fine them up year's turnover, although any eventual fine is unlikely to be that high.

Use the data

1. Using Figure 1, calculate China and Taiwan's combined share of steel export percentage of the total in:
   (a) 2012
   (b) 2013

Test your knowledge…

1. Can you think of another big market, similar to steel, where a producing cou to try to undercut its rivals?
2. Explain the concept of regulatory capture with reference to the US's Federa (note: Google is a US company).

Extended-response question

1. Suppose that the merger between Ryanair and Aer Lingus was not blocked b Examine what the expected effects would have been on prices, consumer c allocative efficiency in the market.

For-profit universities

This case study requires knowledge of Section 3.6 – governme

The global market for higher education has been going through some major changes in recent years, with a rise in e-learning and a much higher proportion of young people going to university than a generation ago.

In the UK, the vast majority of universities are still not-for-profit organisations funded by the government. There are a few exceptions including the University of Law and BPP University, but critics argue that introducing a profit motive in higher education lead

In contrast, the US has seen a strong rise in private, for-profit universities greater choice for students, it is argued. However, the US's Department f clashed with certain private colleges over allegations that they have been In May 2015, Corinthian Colleges, who ran 107 campuses across the US, w the DOE cut off its funding. Private colleges in the US have some access t US, particularly to support student loans (80% of annual revenues in Cori was rescinded after the college was found to be misleading students abou programmes and trapping students with massive debts of up to $75,000 a

Figure 1: US for-profit colleges: revenue from government 2013/2014

Revenue from government	Num
> 90%	
85–90%	
80–85%	
70–80%	
60–70%	
50–60%	
40–50%	
30–40%	
20–30%	
10–20%	
0–10%	
Total colleges	

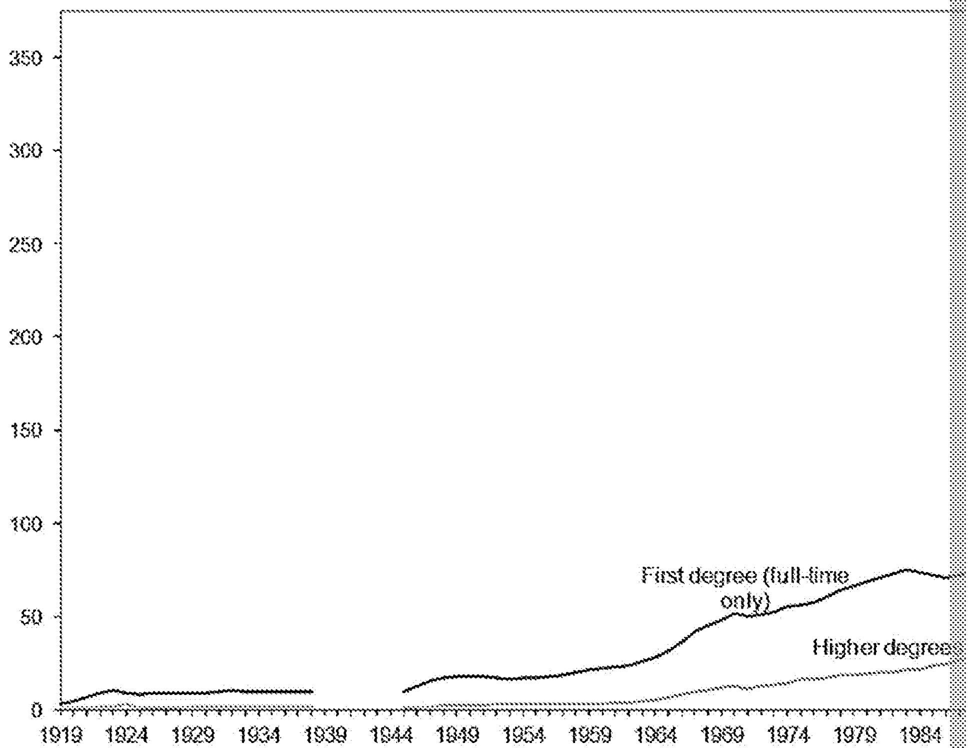
The problem of bogus colleges is high on the agenda in the US after it was Trump University (of Donald Trump, the infamous Republican presidenti over 5,000 students out of (collectively) millions of dollars. At the time of Some commentators have argued that the US government has not been ne intervening in the market, by continuing to fund colleges that have been a behaviour, substandard practices or illegal activity', to the tune of several

The government has to be careful in these instances in order to protect stu perhaps also to ensure that for-profit colleges are innocent until proven gu would argue that the US government should have done more to regulate t from happening in the first place.

UK university data

Figure 2 shows the rise in the number of students going on to study at uni 'discontinuity' (break) in 1994 reflects the inclusion of former polytechnic

Figure 2: Students obtaining degrees in the UK each year (thousands)



Source: Education: Historic

Data not collected during WWII.

As a percentage of the whole population, total participation in higher edu 3.4% (1950), 8.4% (1970), 19.3% (1990), 33% (2000), and 46% (2014 – althou account for students who do not finish their degrees). The proportion of w level has consistently exceeded that of men.

Use the data

1. Look at Figure 1. In which bracket would the median school receive its gove
2. Look at Figure 2. Estimate the proportion of university degrees awarded in polytechnic universities. (Assume that the number of students getting first- polytechnic universities remained unchanged between 1993 and 1994.)

Test your knowledge…

1. Explain the difference between public- and private-sector organisations.
2. Explain how the concept of 'asymmetric information' can be applied to the
3. State one advantage and one disadvantage for students of allowing for-prof

Extended-response question

1. In 2012, the government introduced a cap of £9,000 a year for tuition fees. universities might charge less to attract students, but it turned out that alm full £9,000. Discuss the pros and cons of allowing universities to charge any

Answers

Mark Scheme: extended-response questions

10 marks

Knowledge (2), application (2) and analysis (2)		
	0	No relevant answer given.
Level 1	1–2	A few concepts may be identified correctly, but inconsistently, and thought behind the causes and effects.
Level 2	3–4	Some knowledge of economic concepts is shown, partially linked t reasoning skills, but may focus too much on one side of an argume
Level 3	5–6	Knowledge of the economic concepts is very accurate. Links to th examples. Analysis is well reasoned and logical, and appropriate f
Evaluation (4)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the reasoning.
Level 2	3–4	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

12 marks

Knowledge (2), application (2) and analysis (4)		
	0	No relevant answer given.
Level 1	1–2	A few concepts and examples may be identified correctly, but may Absence of thought behind the causes and effects.
Level 2	3–5	Some knowledge of economic concepts is shown, partially linked t reasoning skills, but may focus too much on one side of an argume
Level 3	6–8	Knowledge of the economic concepts is accurate. Links to the que examples. Analysis is well reasoned, logical and appropriate for th
Evaluation (4)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the reasoning and evidence.
Level 2	3–4	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

15 marks

Knowledge (3), application (3) and analysis (3)		
	0	No relevant answer given.
Level 1	1–3	A few concepts may be identified correctly, but inconsistently, and thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked t reasoning skills, but may focus too much on one side of an argume
Level 3	7–9	Knowledge of the economic concepts is very accurate. Links to the examples. Analysis is well reasoned and logical, and appropriate f
Evaluation (6)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the reasoning.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfai argument. Reasoning / supporting evidence is provided but may b
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

20 marks

		Knowledge (4), application (4) and analysis (6)
	0	No relevant answer given.
Level 1	1–3	A few concepts may be identified correctly, but inconsistently, and thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked t incomplete or basic reasoning skills.
Level 3	7–10	Good knowledge of the relevant economic concepts is displayed, l evidence to support the main arguments. Analysis is well develop side of an argument.
Level 4	11–14	Knowledge of the economic concepts is very accurate. Links to the examples. Analysis is well reasoned and logical, and appropriate f
		Evaluation (6)
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the reasoning.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfai argument. Reasoning / supporting evidence is provided but may b
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

25 marks

		Knowledge (4), application (4) and analysis (8)
	0	No relevant answer given.
Level 1	1–4	A few concepts may be identified correctly, but inconsistently, and thought behind the causes and effects.
Level 2	5–8	Some knowledge of economic concepts is shown, partially linked t incomplete or basic reasoning skills.
Level 3	9–12	Good knowledge of the relevant economic concepts is displayed, l evidence to support the main arguments. Analysis is well develop side of an argument.
Level 4	13–16	Knowledge of the economic concepts is very accurate. Links to the examples. Analysis is well reasoned and logical, and appropriate f
		Evaluation (6)
	0	No evaluation.
Level 1	1–3	Limited attempt at evaluation – may be only loosely related to the reasoning.
Level 2	4–6	Clear evidence of evaluative comments, though they may be unfai argument. Reasoning / supporting evidence is provided but may b
Level 3	7–9	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

Case Study 1: Subway making headway

Use the data

1. In 2003–2004, average calorie consumption was around 2267, by 2009–2010 this h percentage change using these figures is: $\frac{2267-2175}{2267}\times 100 = 4.04\%$ fall (allov
2. The principal-agent problem is the idea that when control of a business is separated Subway) and an agent (in the case, the franchisees), this can incur costs, particularl objectives.

   In the case of Subway, chances are both parties would have the same objective (to costs to Subway involved with getting their franchisees to operate their stores in th wouldn't want too much variation in the way that their stores are operated.

Test your knowledge…

1. Possible advantages: larger profits, economies of scale
   Possible disadvantages: diseconomies of scale, risk that attempts to grow will fail (e
   expertise/knowledge)

   1 mark for each (list is not exhaustive).

2. Organic growth is when a business grows by, for example, increasing its customer b
   developing new products (1). In Subway's case, the main source of organic growth w
   (Note that organic growth differs from inorganic growth through mergers and acqu

3. The most likely answer is C – profit maximisation (1).
   This is the standard assumption in economics. A firm may aim to maximise revenue
   a customer base, but Subway is already well established, so they will be monitoring
   in businesses where managers aim for a certain level of profit to satisfy shareholde
   benefit from higher levels of profit). This is unlikely to apply to Subway as it is franc
   aiming to maximise profit.

Extended-response question

1. Possible strategies that Subway's rivals could adopt include (not an exhaustive list):
   - Price wars / predatory pricing. This could divert sales away from Subway. The
     that Subway could respond by cutting its own prices, leading to lower profits a
     rivals' food is perceived as lower quality, then charging a lower price may not
     could argue that the goods are weak substitutes).
   - A non-price strategy could be to launch a big marketing campaign and/or swit
     keeping with the gradual trend in consumer tastes towards healthier eating).
     Subway's products to its rivals, but it depends on the success of the advertisin
     existing customers are, and how well the other companies can keep up with co

   Make sure that you evaluate the strategies you propose – 10-mark questions and a

Case Study 2: Demergers – another way to grow?

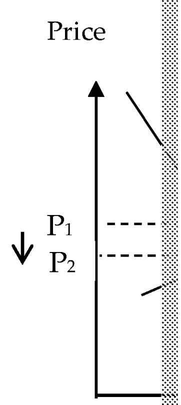
Use the data

1. We would expect the demerger to increase the productivity at workers of PayPal, a
   that only relate to PayPal rather than those related to eBay (more specialised).

2. (a) Revenue in 2013 was around \$16bn, and in 2014 it was around \$17.9bn. The
   $\frac{17.9-16}{16} \text{ x } 100 = 11.9\%$ increase. (Allow 11%–12.5%.)

   (b) Revenue in 2015 was only around \$8.6bn, so the percentage change from 201
   (Allow 51%-53%.)

Test your knowledge…



1. Your diagram should show a shift to the left in the demand for items on eBay, resulting in a lower price and lower quantity demanded. 1 mark for labelling diagram, 1 mark for showing shift, 1 mark for each for showing new and old equilibria.

   It is interesting to note that even though eBay has changed most of its transactions away from the auction format, its decline might be due to people's perception of it as still using an auction format.

2. The demerger could increase competition if it allows PayPal to compete more effectively with some of its rivals in the market (1). However, if it allows PayPal to expand significantly then PayPal could become a monopoly, which could result in higher prices for consumers (1).

Extended-response question

1. Your answer should define what is meant by horizontal and vertical integration:
   - Horizontal integration = merging with another firm at the same stage of produ merged, this would be horizontal integration).
   - Vertical integration = merging with another firm at a related, but different sta supplier merging with energy producer). Can be forward or backward integra

   One of the advantages of horizontal integration for a firm is that it increases its pot it controls a larger part of the market.

   On the other hand, the main advantage of vertical integration is that it reduces the (e.g. it no longer has to buy from a wholesaler: it creates its own raw materials). Bo the sense that they could potentially increase profits.

   However, there are drawbacks to both of these types of growth. If it turns out that acting anti-competitively, then it might be forced by regulators to lower its prices o business. Furthermore, although both types of growth have the potential to genera lead to diseconomies of scale if the firm grows too large (particularly managerial ec to get the workforces in the two original firms to cooperate effectively).

   In your conclusion you should argue which you think is more favourable (or if you t answer might depend on the particular market a firm is in.

Case Study 3: Creative destruction in the business world

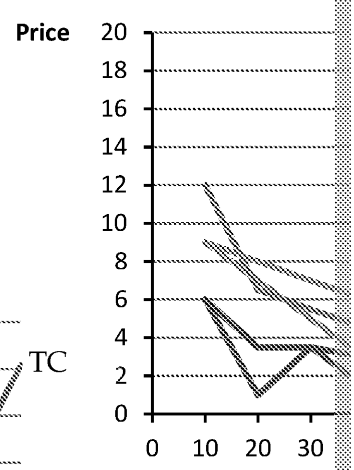
Use the data

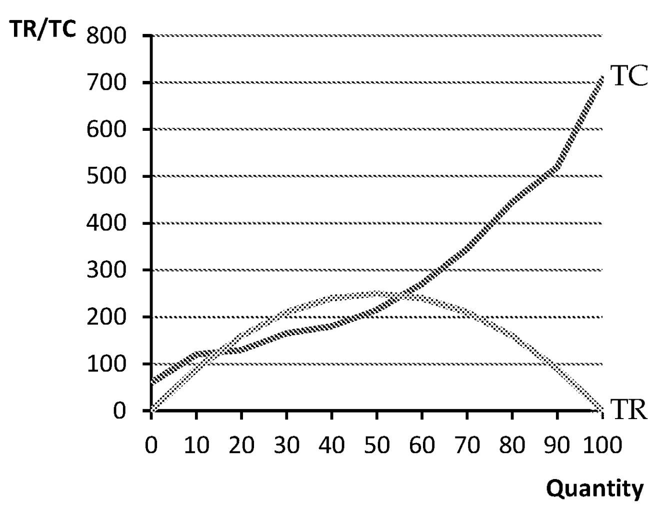
1. (a) The completed table is:

Portions sold	0	10	20	30	40	50
Price per unit	10	9	8	7	6	5
Cost of rent and electricity	60	60	60	60	60	60
Wage bill	0	30	30	60	60	105
Cost of buying ingredients	0	30	40	45	60	50
Total cost	60	120	130	165	180	215
Average total cost	N/A	12	6.5	5.5	4.5	4.3
Average variable cost	N/A	6	3.5	3.5	3	3.1
Marginal cost	N/A	6	1	3.5	1.5	3.5
Total revenue	0	90	160	210	240	250
Average revenue	N/A	9	8	7	6	5
Marginal revenue	N/A	9	7	5	3	1

(b) The diagram should look roughly like the one on the right.

(c) According to the diagram, the profit-maximising level of output is at roughly 44 units (MC=MR).





(d) The diagram sho left.

(e) According to this of output is roug (c). (Note that if in increments of would have beer

Test your knowledge...

1. (a) The only fixed cost is the rent/electricity column (this does not vary with quan cost, you could state either wages or cost of ingredients (1).
   (b) Diminishing marginal productivity is the idea that increasing one input while h steadily smaller increases in output (1). In the context of Figure 1, this could b that need to be hired – each new worker contributes less to output than the la

2. A firm will shut down in the long run if average total cost is greater than average re shut down in the short run if average variable cost is greater than average revenue.

Extended-response question

1. In terms of revenues, it is likely that a luxury tea shop would face falling revenues in spend less in a recession, perhaps because they are saving money / paying off debt further by explaining that luxury tea is likely to have a high income elasticity of dem recession), demand will fall by a disproportionately large amount.

   In terms of costs, this really depends on how the firm responds to the fall in deman which would reduce variable costs. Alternatively, it might switch to providing lowe reduce variable costs. Thirdly, the owners might choose to accept a temporary fall a fall in costs (remember, normal profits are counted as a cost of production). So e demand will trigger a fall in costs, for one or more of these reasons.

Case Study 4: The stock market – perfectly competitive?

Use the data

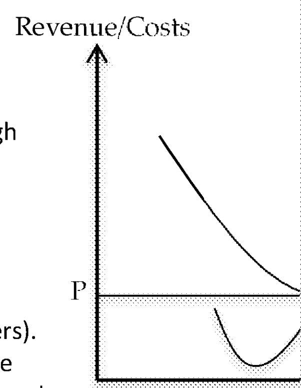
1. (a) In September 2015 the share price plummeted due to the emissions scandal. more sellers than buyers – investors were trying to get rid of their shares befo
   (b) In April 2015, the share price was around €240, so 500 shares would have bee the share price had fallen to around €80, so 500 shares would have been wort €80,000. (Accept 70,000 – 90,000 to account for different readings of the gra

2. A bear market occurs when the stock market falls by at least 20% from its peak. 20 to fall to 6,800 to be considered a bear market.

Test your knowledge...

1. Typical examples include: the market for agricultural goods or the foreign exchange

2. Your diagram should look something like the one on the right. The demand/MR/AR curve is horizontal (1), equilibrium occurs at price P and quantity Q (1), where AC is at its lowest point at a tangent to the demand curve (1). The marginal cost curve goes through this equilibrium point (1).



Extended-response question

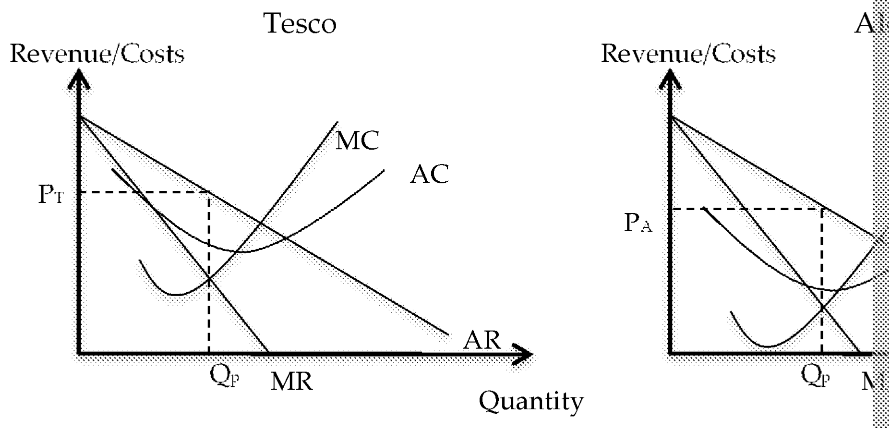
1. Characteristics of perfect competition include:
   - Many buyers and sellers, none of whom are large enough to influence the price (firms are price-takers). This is definitely true of the stock market, there are millions of buyers and sellers, and prices are governed entirely by market forces.
   - Low barriers to entry/exit. This is probably true of the can start buying and selling stock, although many investors choose to pay a br
   - Perfect knowledge of prices. This is true of the stock market; prices are freely updated frequently. However, some traders have been accused of (unfairly) e takes to receive market data, which would violate this characteristic. Read *Flo* interested (or maybe read a summary of the book).
   - Products are homogeneous – this is true of the stock market, a share in one co as a share in another.

Case Study 5: Supermarket wars

Use the data

1. From Figure 1, in 2013 the four-firm concentration ratio was roughly 75%, in 2015 i
   2.5 percentage points (2–3 acceptable). This is almost exactly how much Aldi and L

2. Your diagrams should look roughly like this. According to the article, Aldi has lower
   curves will be shifted down. If both firms maximise profit (i.e. produce where MC=
   P_A, which is lower than Tesco's price of P_T.



Test your knowledge…

1. (a) Economies of scale are when a firm's average costs of production fall as outpu
   (b) Possible economies of scale for supermarkets include: discounts for bulk buyir
   special machinery), specialisation (workforce concentrate on one task, increas
   economies of scale, financial economies of scale (access to credit), and any ot
   mark for each type identified.

Extended-response question

1. Some characteristics of the two market structures you could discuss include:
   - The number and size of the firms (the market is still dominated by a few big su
     ratio is falling as Lidl and Aldi compete)
   - Stability of prices (price wars make the market look more like monopolistic co
     prices are usually stable)
   - Barriers to entry (still more like an oligopoly: difficult to establish customer ba
     fixed costs)
   - Interdependent firms (this is still more like an oligopoly: look at Christmas pric
   - Product differentiation (Aldi and Lidl have differentiated themselves quite a bi
     terms of the store layout, although their products are still similar. Product dif
     monopolistic competition and oligopoly, although not all oligopolies have this

Case Study 6: Inertia in the energy market

Use the data

1. (a) 59% (1)
   (b) 92% (1)

2. (a) The article states that the share of independent energy suppliers in the marke
   2009, which would suggest increasing competition.
   (b) Figure 2 shows that the difference between prices and direct costs of producti
   suggesting that the Big Six firms have made large profits. This would be consis
   (notably, direct costs of production fell in 2014 as oil prices fell, but prices stay

3. Asymmetric information about energy tariffs.

Test your knowledge…

1. (c) Oligopoly (1)

2. Vertical integration is when several stages of supply are owned by the same compa
   factor that makes it more difficult for other firms to compete in the market (1). Ve
   entry because it makes it cheaper for firms to generate energy (1) (because they do
   energy wholesaler). It would be very difficult for a newcomer to compete with firms

Extended-response question

1. The benefits of this idea would be that new entrants would increase price competit prices for consumers, leading to a welfare gain. A subsidy would help new entrants the market (e.g. vertical integration, high fixed costs, building up a brand, etc.). Hov drawbacks/limitations of this policy you could mention:
   - The main drawback is that this policy does not address the underlying cause o information. Perhaps a government information campaign on the benefits of addition/alternative to this policy.
   - Another option could be to cap the prices of tariffs that penalise consumers w cheaper way of limiting market power than a subsidy
   - Subsidies are expensive: opportunity cost in terms of government spending
   - The size of the subsidy would have to be calculated correctly for new firms to
   - Subsidies can introduce inefficiencies in firms that become reliant on them

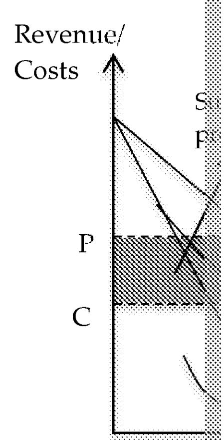
Case Study 7: Diamonds are forever

Use the data

1. A natural monopoly is characterised by incredibly high fixed costs: it would be unec (e.g. railways, water company). This is no evidence that this is the case in the diam because De Beers controlled the rights to the largest mines, not because it had unu
2. Oligopoly: the five-firm concentration ratio in Figure 1 indicates that the market is c
3. Without accounting for inflation, the flat line from around 1982 onwards would ins Unsurprisingly, diamond companies looking to attract investors will usually show th in Figure 2!
4. A monopsony exists when there is a single buyer of the factors of production in a m acceptable). De Beers acted as a monopsony because it employed almost all the di century.

Test your knowledge…

1. (a) Supernormal profit is any extra profit above normal levels of profit (1), since n costs. Alternative answer: the amount by which total revenue exceeds total c
   (b) Your diagram should look roughly like this. The monopoly produces where MC=MR (1), leading to a price of P_m and a quantity of Q_m (1). Supernormal profits are shown by the shaded area. (1). 1 mark for labelling axes, 1 mark for showing cost/revenue curves correctly.



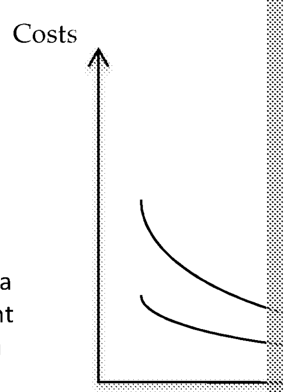
2. Possible benefits include:
   - Benefiting from greater economies of scale (1). This lowers costs, potentially allowing for lower prices (1).
   - Greater profits/revenues allow for research and development (1), this could potentially improve outcomes for consumers through better products (1).
   - Cross-subsidisation (or price discrimination) (1) could allow for monopolies to provide a greater range of products to consumers that may not have been available otherwise (1) (e.g. airlines subsidising economy ticket prices with revenues from business class tickets).

   Other benefits are possible for the marks if they are well justified.

Extended-response question

1. The key thing to remember about natural monopolies is that the marginal and average cost curves are continuously downward-sloping in the long run due to economies of scale, as the diagram on the right shows.

   An industry might turn out to be a natural monopoly if it is too costly for others firms to enter the market. For example, the rail network is a national monopoly, since it would be prohibitively expensive for a new firm to build a whole new set of railway tracks. It would also be inefficient if another firm entered the market, since then neither firm would be able to reach as low an average cost (i.e. there would be a loss of productive efficiency).



Case Study 8: Contestability

Use the data

1. According to the article, the regulatory process is a barrier to entry.
2. The total number of competitive routes is 525, and the total number of flight route make up 31.1% of total routes.
3. 75% of 380 seats is 285, so the total cost is 285*69 =$19,665.

Test your knowledge…

1. Possible features include: no barriers to entry and exit, no sunk costs, no competiti firms have access to the same technology (1 mark for each).
2. Sunk costs are any costs that cannot be recovered if the business fails (e.g. money s

Extended-response question

1. For this question, you should go through the characteristics of a contestable marke automobile market has these characteristics:
   - There are certainly barriers to entry in the automobile market. Incumbent fir breaking into this market would be costly. Furthermore, incumbent firms can production, something that would be hard for new firms to overcome.
   - There would be large sunk costs in the automobile industry, as there would be up a production facility, for example.
   - There may be some competitive disadvantages for new firms, perhaps related automobile manufacturers are transnational).
   - New firms may not have access to the latest technology available to other firm

   These considerations suggest that the automobile industry is mostly uncontestable entrants. However, you could argue that the industry is contestable in the sense th certain areas of the market if one firm raised their prices too much (e.g. luxury cars there is so much variation between automobiles (product differentiation) that ther be innovative and capture some of the market.

Case Study 9: Will raising the minimum wage harm employment?

Use the data

1. If £5.80 is 46% of the median hourly wage, then the median hourly wage is $\frac{5.8}{0.46} =$
2. If the demand and supply for unskilled workers were more elastic, this implies that more responsive to price changes. Therefore, the introduction of a NMW would le unemployment than shown in Figure 1.

Test your knowledge…

1. (a) Your answer should note that the growth rates between 2016 and 2020 are c 2011 and 2015, perhaps using some of the calculations below:

   The annual growth rates between 2011 and 2015 are: $\frac{6.19-6.08}{6.08} \text{ x } 100 = 1.8$ (2011–2012), 1.9% (2012–2013), 3% (2013–2014), 3% (2014–2015). Over the 10.2%. (1)

   By comparison, the annual growth rates between 2016 and 2020 are around 5 is the same each year), or 25% over the whole period. This is considerably hig higher between 2016 and 2020 (1).

   (b) Based on the article, the 25% increase in the NMW over the period seems ver which suggests that there is a higher risk that it will lead to unemployment (1)

Extended-response question

1. There's lots of material in the article to draw on for this question. Your answer sho Figure 1 – the traditional model of how a NMW leads to disequilibrium in the labou some of the main evaluation points you could discuss include:
   - Level of unemployment depends on elasticity of demand and supply of labour
   - Level of unemployment depends on how much higher the minimum wage is a how high the NMW is compared to median wages).
   - Level of unemployment depends on how many people are affected by the mi
   - You could argue that it would boost employment, as it would allow some peo afford to / were better off on benefits (this will depend on the country).
   - Depends on the capacity of employers to absorb higher labour costs.
   - Depends on whether the economy is performing well or not: if the economy i unemployment, it might make matters worse.

Case Study 10: Is there a shortage of teachers?

Use the data

1. Median earnings are calculated by taking the 'middle value' of everyone's earnings of salary, the median value would be the middle person's salary). The mean value i by the total number of people.

   The mean value should be higher, since those who earn higher salaries can earn mu those who earn lower salaries than the average will only earn slightly less. Therefo mean earnings were used. This is why it is usually considered fairer to calculate me If you have trouble visualising this, consider this example:

Person	**1**	**2**	**3**	**4**	**5**
Salary	£20,000	£24,000	£26,000	£32,000	£42,0

   Mean = £47,000, median = £32,000.

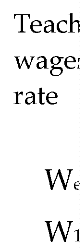
2. (a) The 'hump' in Figure 2 shows the effect of the baby boom during the 1960s. B

   (b) We can see from Figure 2 that the number of primary-school pupils is rising s number of secondary-school pupils will see a similar rise in a few years as thes secondary school.

Test your knowledge…

1. (a) Geographical immobility of labour is when various factors constrain the ability of people to move to where jobs are located (1). In the case of teachers, the passage mentions that high living costs in the south-east / London may prevent some teachers from working in schools in these regions (1).

   (b) Other possible factors include: wage rates in other occupations, strength of the economy, job satisfaction, working hours, non-wage benefits, scope for promotions, qualifications needed, geographical mobility of labour, etc. 1 mark for each factor stated.



2. Your diagram should look something like the one on the right. The wage set by government (W_1) is below the market wage (W_e) (1), leading to a shortage of $Q_s - Q_d$ (1). 1 mark for labelling axes, 1 mark for supply and demand of teachers.

Extended-response question

1. Your answer should first explain how raising the wage would attract more teachers labour (you could refer to your diagram in question 2 for this), and how it could hel labour and/or attract better-quality teachers. There are a number of disadvantage you could mention:
   - The success depends on the elasticity of supply for teachers. If supply is inela to train new teachers), a wage increase will be less effective in attracting new
   - Raising the wages of all teachers ignores the fact that some areas/subjects ha (it would be counterproductive to raise the wages of teachers for subjects wh example).
   - The article states that wages may not be the most important factor in determ teachers are leaving the profession to work in jobs with lower wages, so perh non-wage factors instead.
   - The effectiveness of the policy depends on the size of the wage change (too g excess supply – which is a problem in itself!), and on the wage rates in other o
   - Opportunity cost of raising the wage, in terms of government spending.

Case Study 11: The European Competition Commission

Use the data

1. (a) In 2012: (51.2 + 10.3) / 296.7 * 100 = 20.7%

   (b) In 2013: (57.8 + 11.3) / 294.8 * 100 = 23.4%

Test your knowledge…

1. This is exactly what happened in the oil market (at the time of writing in late 2015 / Saudi Arabia are allegedly cutting prices to try to force their rivals (e.g. US shale oil are some signs that they are considering abandoning the strategy, however.

2. Regulatory capture is when an independent/government body appointed to regula the industry instead of acting in the public interest (1).

   This may or may not have applied to the US's Federal Trade Commission's dealings incentive would have been for the Commission to rule in favour of Google, given G contributes to the US economy (1).

Extended-response question

1. Had the merger gone ahead, Ryanair would have had a monopoly on air travel over would have increased. Consumer choice would have fallen, as consumers no longe Ryanair and Aer Lingus. Ryanair's profit would almost certainly have increased (ac monopoly), as it would be able to charge a higher price for the same routes. Alloca equal to marginal cost. If Ryanair had a monopoly, they would probably charge pri would be allocative inefficiency / a reduction in allocative efficiency. Given that all everyone except Ryanair – it seems like a good idea that the European Commission

Case Study 12: For-profit universities

Use the data

1. There are 1,947 schools in total, which means the median school is number 973 (or bracket (or down from the > 90% bracket) it is clear that the 973rd/974th school belo
2. In 1993, around 80,000 students obtained a first-time degree from normal universit increase to around 220,000. If the number of degrees from normal universities did degrees came from polytechnics. Therefore, the proportion of degrees from polyte way to account for different readings from the graph.)

Test your knowledge…

1. Public sector organisations are funded and run by the government (1) (either centr schools, hospitals, they are usually not-for-profit). In contrast, private-sector organ individuals or companies (1) (almost always for profit).
2. Asymmetric information is a situation where one party has better knowledge about (1). In the for-profit university market, the colleges have better knowledge of how graduates for getting good jobs. Prospective students have less information on this information problem comes from (1).
3. The main advantage for students is that they have greater choice about the univers argue that for-profit universities will increase competition in the market, leading to education (1).

   Possible disadvantages are that quality of education will be lower (1) or that studen universities (1).

Extended-response question

1. If the cap were scrapped, we would probably expect at least some universities to ra since so many charge the maximum amount now).

   On the one hand, this would allow universities to generate more revenue, which co the quality of their education. It might also resolve the problem that universities fe £9,000 fee, or it suggests that their courses are of a lower quality than their rivals: r Overall, the market mechanism should, in theory, mean that the 'price' (fee) of eac reflects the benefits it gives to the individual, otherwise they would go to another u

   However, there are also possible downsides to this policy. It would probably add to consider to be unfairly high at the moment anyway. Students also face asymmetric university, since it's difficult to tell just how good/useful the teaching will be (open so far). Universities might still feel the need to bump up prices to give the illusion o government more in student loans, a large proportion of which is often never paid

   This is quite a complex topic: forming policy on university fees is very tricky. At the economists agree that completely scrapping tuition fees is a bad idea, since the 'pri a university degree (in terms of higher future wages) generally exceeds the cost of f studied, of course). So it would be an unfair burden on society if the government p education.

   Note: you won't need to know any details of this topic for your exams, but it should anyway!